CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 93-149

SITE CLEANUP REQUIREMENTS FOR:

HONEYWELL INC.
AND
SPIEKER-FRENCH 34

FORMER SYNERTEK #3 SITE
3001 STENDER WAY
SANTA CLARA, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Site Location and Description This Order presents the selected final remedial action plan (RAP) for the former Synertek #3 site which is located at 3001 Stender Way, Santa Clara, Santa Clara County. Honeywell Inc. (Honeywell) acquired Synertek Inc. (Synertek) as a wholly owned subsidiary in 1979. Synertek manufactured semiconductor products at Synertek #3, from March 1978 to February 1985. Spieker-French 34 is the current owner of the property. Honeywell and Spieker-French 34 are hereinafter referred to as the dischargers.

   Synertek #3 is located in a relatively flat portion of the Santa Clara Valley, in an industrial park setting. The area is dominated by the electronics industry, particularly computer related manufacturing. The majority of the area is developed and surface water is controlled by the storm sewer system which directs runoff to San Tomas Aquino Creek. The nearest residential areas are located 3600 feet south of the site. Other residential areas are located 6000 feet north-northeast of the site. None of these residential areas is within the area impacted by the past chemical releases from Synertek #3.

2. Site Pollution History In 1982, the Board conducted a survey of underground storage tanks in the Santa Clara Valley. Honeywell submitted a completed facility questionaire describing the underground solvent storage tank at Synertek #3. At Board staff's request, Honeywell conducted soil borings in the vicinity of the underground tank and found evidence of leakage. As a result of this discovery, staff required the initiation of subsurface pollution characterization at Synertek #3. Since that time, Honeywell has conducted studies to evaluate the nature and extent of soil and groundwater pollution at Synertek #3. Honeywell began remedial actions at the site in 1985 with the

removal of the underground tank and polluted soil in the immediate area of the tank. The extraction and treatment of polluted groundwater began in 1987.

3. Chemicals of Concern Based on the Remedial Investigation completed for Synertek #3 by Honeywell, it was determined that the following Volatile Organic Compounds (VOC's) were present in soil and groundwater at Synetek #3:

Acetone	1,1-DCE
Xylenes	TCE
1,1,1-TCA	Methyl Isobutyl Ketone (MIBK)
Ethyl Benzene (ETB)	Methyl Ethyl Ketone (MEK)
1,1-DCA	Chlorethane
Vinyl Chloride	Trans 1,2-dichloroethylene
Toluene	(TDCE)

4. Regulatory Status Synertek #3 has been previously regulated under the Board's Site Cleanup Requirements Order No. 87-083. This Order supersedes Order 87-083 and comprises the final remedial action plan for Synertek #3.

Honeywell, as the previous owner of Synertek, has accepted responsibility for cleanup at Synertek #3. Spieker-French 34 is secondarily responsible for the soil and groundwater cleanup, and is responsible only in the event Honeywell fails to comply with the prohibitions, specifications, and provisions of this Order.

5. Site Hydrogeology Synertek #3 is located in the Santa Clara Valley, a structural basin filled with marine and alluvial sediments. The coarser deposits are probably the result of deposition in or near stream channels that drain the highlands that surround the basin. Finer grain deposits result from a variety of conditions with the eventual result of a heterogeneous sequence of interbedded sands, silts and clays. Municipal water supply wells tap an extensive deep regional confined aquifer that lies generally greater than 200 feet below ground surface (BGS). A thick, relatively impermeable aquitard separates this deep confined aquifer from a complex series of discontinuous aquifers and aquitards that may extend up to within a few feet of the ground surface. Two shallow water bearing zones have been investigated as part of the remedial actions at Synertek #3. The uppermost aquifer, designated the A aquifer, consists of a silty sand with interbedded silt and clay layers and lies generally between 15 and 30 feet BGS. Below the A aquifer is a silt and clay aquitard which is approximately seven feet in thickness. Below this aquitard is the second aquifer at Synertek #3, designated the B aquifer. The B aquifer consists of a sand layer of variable thickness. The B aquifer is underlain by a clay aquitard

believed to be part of a thick regional clay formation.

6. Interim Groundwater Remediation Hydrogeologic investigations have been conducted at Synertek #3 since 1982. Groundwater monitoring has been conducted since 1984. Investigation results have shown that pollution was present in the A aquifer at levels of up to 107,535 parts per billion (ppb). Since 1987, a groundwater extraction and treatment system consisting of an extraction well and air stripping tower has been operating. Treated groundwater is discharged to San Tomas Aquino Creek via the storm drain under an NPDES permit.

7. Interim Soil Remediation Soil investigation at the site indicates that soil pollution has been confined to the area immediately adjacent to the former underground solvent storage tank. Acetone was the predominant soil pollutant, and has been detected at levels up to 22,000 parts per million (ppm). Polluted soil with a total VOC concentration in excess of 1 ppm was to have been removed. Due to the possibility that pollutated soil with a VOC concentration in excess of the 1ppm level may have been left in place along the northern wall of the tank excavation, Honeywell has proposed additional sampling to determine if any additional soil remediation is needed.

8. Extent of Groundwater Pollution VOC's are present in the shallow A aquifer at Synertek #3. Pollution has been detected in the B aquifer only twice, in well 6B. Pollution has not been detected in the B aquifer since 1989, and it is presumed that the B aquifer has not been impacted. The pollutant plume at the site was originally roughly oval shaped, 100 feet long and 50 feet wide. Plume concentrations have decreased significantly since interim remediation started.

9. Vertical Conduit Study A record survey of water wells within one-half mile of Synertek's Buildings #1 and #3 was conducted. The study identified two wells located at Synertek #3. These wells were sealed in 1983 and 1987 respectively, to preclude them from acting as vertical conduits for the passage of pollutants down to deeper aquifers.

10. Selected Remedial Actions Honeywell initially screened various groundwater and soil remediation alternatives based on such criteria as: (1) protection of human health and the environment; (2) compliance with appropriate regulatory requirements; (3) cost effectiveness; and (4) use of permanent solutions and alternatives to the maximum extent practicable. The alternative selected as the final remedial action plan for Synertek #3 consisted of the following:

    o Removal of polluted soil from the former underground tank area until the soil cleanup standard of 1 part per million is achieved. Most of the polluted soil has already been removed, however further sampling is

neccesary to determine if any additional polluted soil was left in place.

- o Continued groundwater extraction to reduce and maintain VOC levels at or below cleanup standards in groundwater, and to control plume migration. Extracted groundwater will be treated via air stripping and discharged into the storm drainage system. An NPDES Permit has been adopted by the Board (Order NO. 87-51) to regulate this discharge.

- o Continued groundwater monitoring to demonstrate progress towards or compliance with groundwater cleanup standards.

11. Cleanup Standards The groundwater cleanup standards for the site are based on Environmental Protection Agency (EPA) maximum contaminant levels (MCL's) (proposed or adopted), California Department of Toxic Substances Control (DTSC) MCL's (proposed or adopted), DTSC action levels, EPA's Integrated Risk Information System (IRIS), or the health risk assessment performed by Honeywell. There are 13 target chemicals of concern at this site. Cleanup standards have only been assigned to nine of the target chemicals because a) there are no cleanup criteria for the other four chemicals, and b) these four chemicals were all detected infrequently at relatively low concentrations. The cleanup standards are defined in Table 1.

12. Current Site Conditions Compared to Groundwater Cleanup Standards Concentrations of chemicals detected in monitoring wells at Synertek #3 have declined significantly since interim groundwater remediation began, and are currently believed to be at or below grounwater cleanup standards. For this reason, groundwater extraction at Synertek #3 has been curtailed because groundwater cleanup standards have been achieved. No additional, significant removal of pollutants from the groundwater is believed to be taking place. As long as groundwater pollution levels remain at or below cleanup standards, a deed restriction on the use of groundwater and further groundwater extraction at Synertek #3 is considered unneccesary.

13. Uncertainty in Achieving Cleanup Standards: The goal of the final remedy is to restore groundwater to its beneficial uses. Based on information obtained during the interim remedial actions and on a careful analysis of all remedial alternatives, the Board believes that the selected remedy achieves this goal. However, previous studies suggest that groundwater extraction and treatment will not be, in all cases, completely successful in reducing pollutants to health-based levels in the aquifer zones. The Board recognizes that operation of the selected extraction and treatment systems may demonstrate the technical impracticability of reaching health-based groundwater quality standards. If it becomes apparent, during implementation or future operation of the systems, that pollutant levels in groundwater have ceased to decline and are remaining

constant at levels higher than the cleanup standard, the groundwater cleanup standard and the remedy may be reevaluated.

Any changes to the cleanup standards specified in Finding 11 or the remedy described in Finding 10 will require Board approval.

14. Future Changes to Cleanup Levels and Remedial Actions: If new information indicates cleanup standards cannot be attained or can reasonably be surpassed, the Board will decide if further final cleanup actions, beyond those completed, shall be implemented at Synertek #3. If changes in health criteria, administrative requirements, site conditions, or remediation efficiency occur, the dischargers will submit an evaluation of the effects of these changes on cleanup standards, as specified in Finding 11.

The Board recognizes that Honeywell has already performed extensive investigative and remedial work at Synertek #3 and that the dischargers are being ordered hereby to perform additional remedial tasks. It is in the public interest to have the dischargers undertake such remedial actions promptly and without prolonged litigation or the expenditure of public funds. The Board recognizes that an important element in encouraging the dischargers to invest substantial resources in undertaking such remedial actions is to provide the dischargers with reasonable assurances that the remedial actions called for in this Order will be the final remedial actions required to be undertaken by the dischargers. On the other hand, the Board also recognizes its responsibility to protect water quality, public health, and the environment, and that future developments could indicate that some additional remedial actions may be necessary.

The Board has considered and balanced these important considerations, and has determined that the remedial actions ordered herein represent the Board's best, current judgment of the remedial actions to be required of the dischargers. The Board will not require the dischargers to undertake additional remedial actions with respect to the matters previously described herein unless: (1) conditions at the site, previously unknown to the Board, are discovered after adoption of this Order, or (2) new information is received by the Board, in whole or in part after the date of this Order, and these previously unknown conditions or this new information indicates that the remedial actions required in this Order may not be protective of public health and the environment. The Board will also consider technical practicality, cost effectiveness, State Board Resolution No. 68-16 and other factors evaluated by the Board in issuing this Order in determining whether such additional remedial actions are appropriate and necessary.

15. Basin Plan The Board adopted a revised Water Quality Control Plan for the San

Francisco Bay Basin (Basin Plan) on December 17, 1986 and subsequently amended it. This Order implements the water quality objectives for South San Francisco Bay and contiguous surface and ground waters.

16. Board Resolution 89-39 On March 15, 1989, the Board adopted Resolution No. 89-39, which incorporated the State Board Policy of "Sources of Drinking Water" into the Basin Plan. The policy provides for a Municipal and Domestic Supply designation for all waters of the State with some exceptions. Groundwater of the State are considered to be suitable or potentially suitable for municipal or domestic supply except where: 1) the total dissolved solids in the groundwater exceed 3000 mg/L, and/or 2) the water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day. Based on data submitted by Honeywell, the Board finds that neither of these two exceptions apply to the A or B zone at Synertek #3 and its downgradient plume area. Thus, the aquifers at Synertek #3 and its pollutant plume area are considered to be potential sources of drinking water.

17. State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California" On October 28, 1968, the State Water Resources Control Board adopted Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California". This policy calls for maintaining the existing high quality of State waters unless it is demonstrated that any change would be consistent with the maximum public benefit and not unreasonably affect beneficial uses. The discharges of waste at Synertek #3 which impacted groundwater were in violation of this policy; therefore, the groundwater quality needs to be restored to its original quality to the extent reasonable. For the purpose of establishing cleanup standards, the shallow groundwater at Synertek #3 and its pollution plume area are designated a potential source of drinking water.

    Cleanup to the cleanup standards specified in this Order would protect the primary beneficial use of the groundwater as a potential source of drinking water, based on available information. For this reason, these cleanup standards were accepted as meeting the intent of Resolution No. 68-16.

    The cleanup standards meet current applicable health criteria and restore the quality of the groundwater to the extent reasonable given technical and economic constraints. These constraints include the high additional incremental costs for removal of small amounts of additional chemicals and the need to minimize the removal of groundwater to achieve acceptable remedial standards.

18. Beneficial Uses The existing and potential beneficial uses of the groundwater underlying and adjacent to Synertek #3 include:

a. Industrial process water supply
b. Industrial service water supply
c. Municipal and Domestic water supply
d. Agricultural water supply.

19. The dischargers have caused or permitted, and threaten to cause or permit waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance. Containment and cleanup measures need to be continued to alleviate the threat to the environment posed by the continued migration of the groundwater plume of pollutants.

20. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.

21. Pursuant to Section 13304 of the Water Code, the dischargers are hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. Upon receipt of a billing statement for such costs, the dischargers shall reimburse the Board.

22. The Board has notified the dischargers and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.

23. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the dischargers, their agents and assigns or successors, shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.

2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

B. **SPECIFICATIONS**

1. The storage, handling, treatment or disposal of polluted soil or groundwater shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. The dischargers shall conduct monitoring activities as determined by the Board's Executive Officer, including the self-monitoring program contained in Attachment C, to define the current local hydrogeologic conditions, and the lateral and vertical extent of groundwater p[ollution. Should monitoring results show evidence of pollutant migration, additional plume characterization may be required.

3. Final cleanup standards for groundwater at this site shall be as specified in Table SMP 1.

4. The dischargers shall implement the final remedial action plan described in Finding 10. As long as groundwater pollution levels remain at or below cleanup standards, a deed restriction on the use of groundwater at Synertek #3 is considered unnecessary.

C. **PROVISIONS**

1. The dischargers shall comply with the Prohibitions and Specifications above, in accordance with the following tasks and compliance time schedules:

SOIL REMEDIATION

a. TASK 1 - ADDITIONAL SOIL CHARACTERIZATION Submit a technical report acceptable to the Executive Officer documenting the completion of the investigation of possible remaining vadose zone pollution. If it is determined that soil pollution above the cleanup level of 1 ppm still exists, then the technical report should include a plan, including a time schedule, for completion of soil remediation.

COMPLETION DATE: May 30, 1994

b. TASK 2 - COMPLETION OF SOIL REMEDIATION: Document in a technical report acceptable to the Executive Officer the completion of the soil remediation. This report should include the results of chemical analyses of appropriate samples from the source area.

COMPLETION DATE: One month following the completion of all soil remediation activities but no later than August 31, 1994.

STATUS REPORT

c. TASK 3 - ONE-YEAR STABILITY REPORT: Submit a technical report acceptable to the Executive Officer containing an evaluation of groundwater quality at the site after the one-year stability period described in Section E. 4. of the Self-Monitoring Plan. The report should evaluate the stability of pollutant levels in groundwater at the site.

COMPLETION DATE: January 31, 1995

d. TASK 4 - FOUR-YEAR STATUS REPORT AND EFFECTIVENESS EVALUATION: Submit a technical report acceptable to the Executive Officer containing an evaluation of the effectiveness of the installed final cleanup measures for the site; additional recommended measures to achieve final cleanup objectives and standards, if necessary; a comparison of previous expected costs with the costs incurred and projected costs necessary to achieve cleanup objectives and standards; and the tasks and time schedule necessary to implement any additional final cleanup measures.

This report shall evaluate and document the cleanup of polluted groundwater and soil. If cleanup standards have not been maintained and are not expected to be achieved through continued groundwater extraction and/or soil remediation, this report shall also contain an evaluation addressing whether it is technically feasible to achieve the cleanup standards, and if so, a proposal for procedures to do so.

COMPLETION DATE: January 31, 1998

NEW HEALTH CRITERIA

e. TASK 5 - EVALUATION OF NEW HEALTH CRITERIA: Submit a technical report acceptable to the Executive Officer that contains an evaluation of how the final plan and cleanup standards would be affected, if new toxicological data or health criteria concerning the target chemicals are derived or promulgated.

COMPLETION DATE: 60 days after request made by the Executive Officer.

2. Honeywell is responsible for and shall comply with all of the Provisions of this Order. If Honeywell fails to comply with any of the provisions of this Order, within sixty (60) days of the Executive Officer's determination and actual notice Spieker-French 34 shall comply with the provisions of this Order as noticed.

3. If the dischargers are delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the dischargers shall notify the Executive Officer prior to the deadline for the completion date. Notifications can be included with required groundwater reports.

4. The dischargers shall submit to the Board acceptable monitoring program reports containing results of work performed according to the self-monitoring program in Attachment C, prescribed by the Board's Executive Officer.

5. Technical reports summarizing the self-monitoring program results and the status of compliance with the Prohibitions, Specifications, and Provisions of this Order shall be submitted on a quarterly basis, according to the schedule below.

QUARTER	First	Second	Third	Fourth
PERIOD	Jan.-March	April-June	July-Sept.	Oct.-Dec.
DUE DATE	April 30	July 31	October 31	January 31

The quarterly reports shall include:

a. a summary of work completed since the previous quarterly report, and work projected to be completed by the time of the next quarterly report;

b. appropriately scaled and labeled maps showing the location of all monitoring wells, extraction wells, and existing structures;
c. updated water table and piezometric surface maps for all affected water bearing zones, and isoconcentration maps for VOC's in all affected water bearing zones, to be included at a minimum in the reports for the second and fourth quarters, or in the event of significant changes;
d. a summary tabulation of all groundwater levels and chemical analysis results for groundwater monitoring wells specified in the attached Self-Monitoring Program;
e. a summary tabulation of the volume of groundwater extracted and the VOC concentrations for all groundwater extraction wells;
f. an estimate of volume or mass of pollutants removed by the remedial system in the quarter and a cumulative tabulation of the total volume or mass of pollutants removed (total and lbs/day);
g. identification of potential problems which will cause or threaten to cause noncompliance with this Order and what actions are being taken or planned to prevent these obstacles from resulting in noncompliance with this Order; and,
h. in the event of noncompliance with the Provisions and Specifications of this Order, the report shall include written justification for noncompliance and proposed actions and schedule to achieve compliance.

6. Once cleanup standards have been achieved, monitoring reports may be submitted on an annual basis. The reports shall be consistent with the requirements of Provisions 2. c. and d. above and with E. 4. and 5. of the self- monitoring program.

7. All hydrogeological plans, specifications, reports, and documents shall be signed by or stamped with the seal of a registered geologist, engineering geologist or professional engineer.

8. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain Quality Assurance/Quality Control records for Board review.

9. The dischargers shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.

10. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this

Order, shall be provided to the following agencies:

a. Santa Clara Valley Water District
b. Santa Clara County Health Department
c. City of Santa Clara

The Executive Officer may additionally require copies of correspondence, reports and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order to be provided to a local repository for public use.

11. The dischargers shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:

    a. Entry upon premises in which any contamination sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
    b. Access to copy any records required to be kept under the terms and conditions of this Order.
    c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
    d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the dischargers.

12. Spieker-French 34 shall file a report on any changes in site occupancy and ownership associated with the facility described in this Order.

13. The discharger shall reimburse the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order, upon receipt of a billing statement for such costs.

14. If any hazardous substance is discharged to any waters of the state, or discharged and deposited where it is, or probably will be discharged to any waters of the state, the dischargers shall report such discharge to this Board, at (510) 286-1255 on weekdays during office hours from 8 a.m. to 5 p.m., and to the Office of Emergency Services at (800) 852-7550 during non-business hours. A written report shall be filed with the Board within five (5) working days and shall contain information relative to: the nature of waste or contaminant, quantity involved, duration of incident, cause of spill, Spill Prevention, Control, and Countermeasure Plan (SPCC) in effect, if any, estimated size of affected

area, nature of effect, corrective measures that have been taken or planned, and a schedule of these activities, and persons/agencies notified.

15. The Board will review this Order periodically and may revise the requirements when necessary.

16. This Order supersedes Order No. 87-083 adopted by the Board on July 15, 1987. Order No. 87-083 is hereby rescinded.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 19, 1993.

Steven R. Ritchie
Executive Officer

Attachments:
Table 1: Final Cleanup Standards
Figure 1: General Location Map
Figure 2: Site Map
Self-Monitoring Program

TABLE 1

Final Cleanup Standards

HONEYWELL INC. AND SPIEKER-FRENCH 34
FORMER SYNERTEK #3 SITE
3001 STENDER WAY
SANTA CLARA, SANTA CLARA COUNTY

Final cleanup standards for all wells shall not be greater than the levels as provided in this table. The numerical final cleanup standards, therefore shall not exceed the below listed levels in any well set forth in the Self-Monitoring Plan.

Chemical	Cleanup Standard (ug/l)	Reference
Acetone	522	RISK
1,1-dichloroethane (1,1-DCA)	5	CA MCL
1,1-dichloroethylene (1,1-DCE)	6	CA MCL
Ethylbenzene	680	CA MCL
Toluene	100	CA MCL
1,1,1-trichloroethane (1,1,1-TCA)	200	CA MCL
Trichloroethene (TCE)	5	CA MCL
Vinyl Chloride	0.5	CA MCL
Xylenes	1750	CA MCL

CA MCL - California State Maximum Contaminant Level (MCL) for Drinking Water.
RISK - Health Risk Assessment Performed By Honeywell.

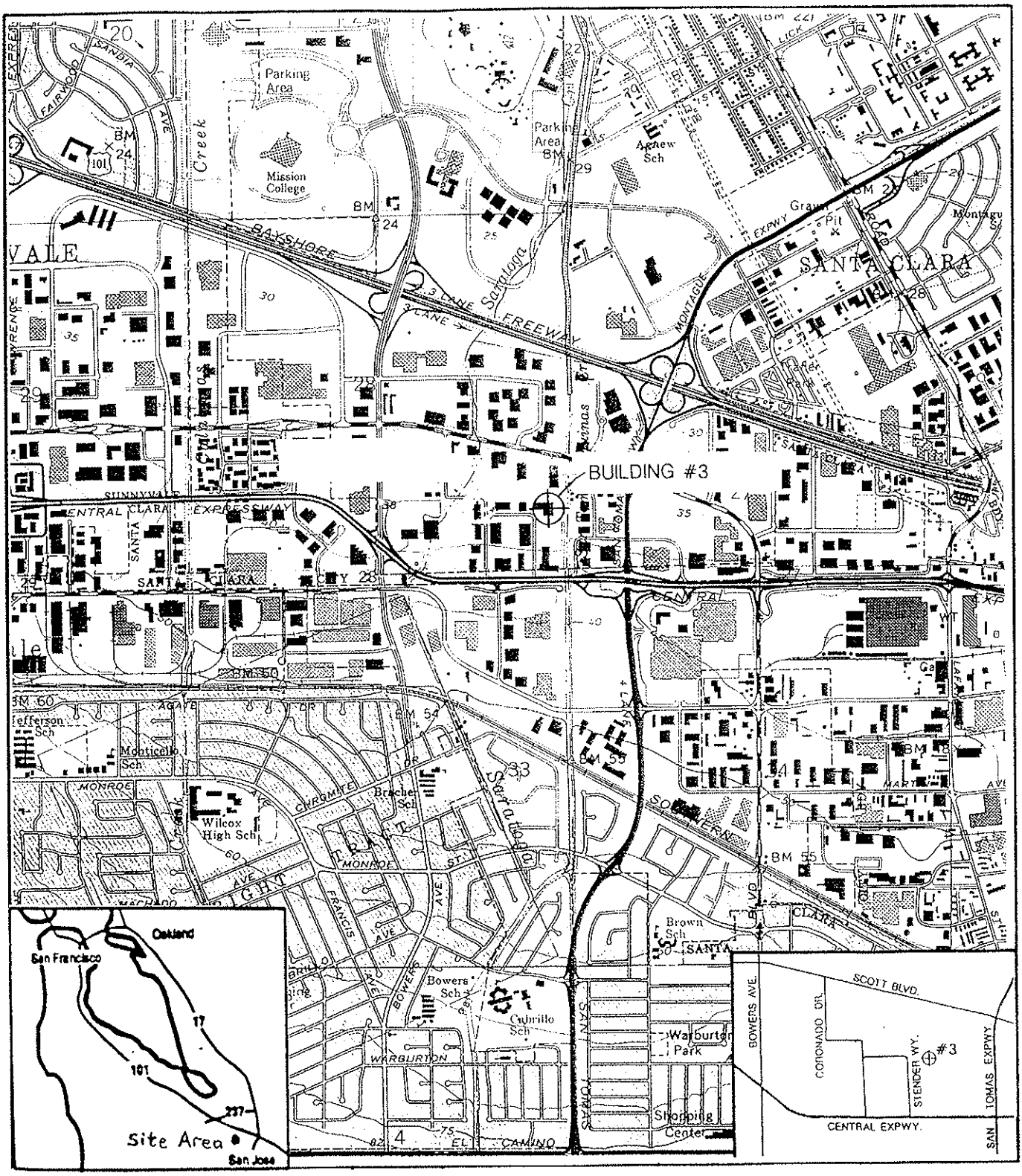

Figure 1 Location Map
Synertek #3 Site
3001 Stender Way, Santa Clara

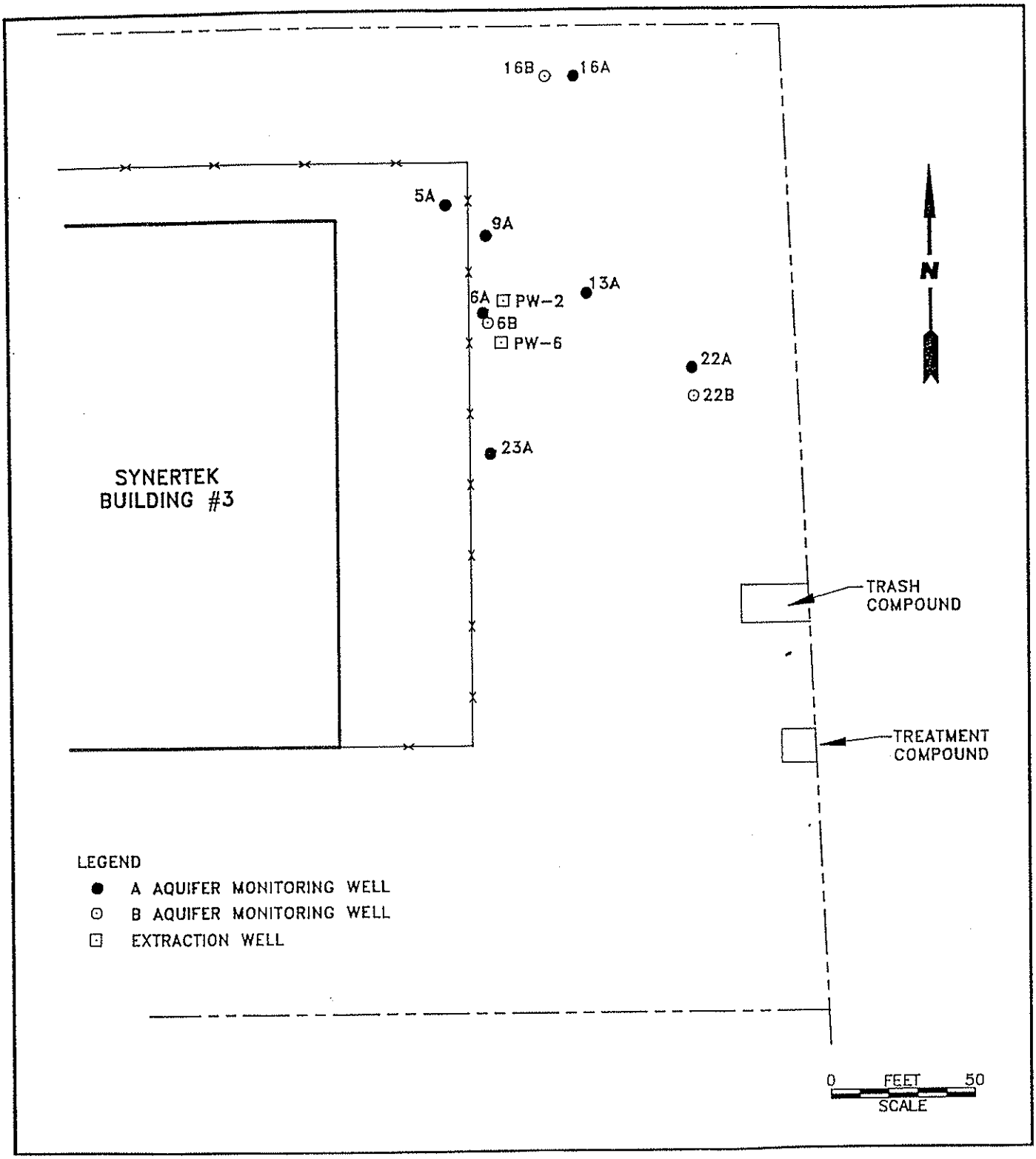

Figure 2

Site Map
Synertek #3 Site
3001 Stender Way, Santa Clara

Base map from
Groundwater
Technology

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

HONEYWELL INC.
AND
SPIEKER-FRENCH 34

FORMER SYNERTEK #3 FACILITY
SANTA CLARA, SANTA CLARA COUNTY

GROUNDWATER SELF-MONITORING PROGRAM

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of the waste dischargers' monitoring program, also referred to as a self-monitoring program, are: (1) To document compliance with site cleanup requirements and prohibitions established by this Regional Board, (2) To facilitate self-policing by the waste dischargers in the prevention and abatement of pollution arising from waste discharge, (3) To develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) To prepare water and waste water quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the EPA Method 8000 series described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," dated November 1986; or other methods approved and specified by the Executive Officer of this Regional Board.

C. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Violations or Potential Violations of Requirements

a. The dischargers shall file a written technical report at least 15 days prior to advertising for bid on any construction project which may potentially adversely effect the dischargers' soil and groundwater cleanup activities. All projects involving subsurface construction shall be reported.

b. In the event the dischargers are unable to comply with the conditions of the site cleanup requirements and prohibitions due to:

(1) maintenance work, power failures, or breakdown of groundwater and soil vapor extraction and treatment equipment, or

(2) accidents caused by human error or negligence, or

(3) other causes such as acts of nature, or

(4) poor operation or inadequate system design,

the dischargers will accelerate pertinent portions of the monitoring program if required by the Regional Board's Executive Officer. Such analysis shall continue until such time as the dischargers are back in compliance with the conditions and prohibitions of the site cleanup requirements, or until such time as the Executive Officer determines to be appropriate. The results of such monitoring shall be included in the regular Self-Monitoring Report.

2. Bypass Reports

Bypass reporting shall be an integral part of the regular monitoring program report. A report on bypassing of treatment units shall be made which will include cause, time and date, duration and estimated volume bypassed, method used in estimating volume, and persons and agencies notified. Notification to the Regional Board shall be made immediately by telephone (510-286-1255), followed by a written account within 15 days.

3. Self-Monitoring Reports

a. Reporting Period:

Written reports shall be filed regularly each reporting period within one month from the end of the period monitored.

b. Letter of Transmittal:

A letter transmitting self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period and actions taken or planned for correcting any requirement violation. If the dischargers have previously submitted a detailed time schedule for correcting requirement violations, a reference to this correspondence will be satisfactory. Monitoring reports and the letter transmitting reports shall be signed by either a principal executive officer or his duly authorized employee. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

c. Data Results:

(1) Results from each required analysis and observation shall be

submitted in the self-monitoring regular reports. Results shall also be submitted for any additional analyses performed by the dischargers at the specific request of the Regional Board. Quarterly water level data shall also be submitted in the quarterly report.

(2) The report shall include a discussion of unexpected operational changes which could affect performance of the extraction system, such as flow fluctuations, maintenance shutdown, etc.

(3) The report shall also identify the analytical procedures used for analyses either directly in the report or by reference to a standard plan accepted by the Regional Board's Executive Officer. Any special methods shall be identified and shall have prior approval of the Executive Officer.

(4) Original lab results shall be retained and shall be made available for inspection for six years after origination or until after all continuing or impending legal or administrative actions are resolved.

(5) The dischargers shall describe in the monitoring report the effectiveness of the actions taken to regain compliance if compliance is not achieved. The effectiveness evaluation shall include the basis of determining the effectiveness, water surface elevations for each well used to determine water surface elevation contours and water quality data.

(6) The annual report shall be combined with the monitoring report submitted on January 31, of each year and shall include cumulative data for the current year for each parameter of concern. The annual report shall also include minimum, maximum, median and average water quality data for the year. Water level data and GC/MS results shall be included in the annual report. The annual report shall also include contour maps for THF present above detectable concentrations.

d. Self-Monitoring Program (SMP) Revisions:

Additional long term or temporary changes in the sample collection frequency and routine chemical analysis may become warranted as monitoring needs change. These changes shall be based on the following criteria and shall be proposed in a monitoring report. The changes shall be implemented no earlier than 45 days after a self-monitoring report is submitted for review unless the proposal is found to be unacceptable by the Regional Board's Executive Officer.

Criteria for SMP revisions:

(1) Discontinued analysis for a routine chemical parameter for a specific well after a one-year period of below detection limit values for that parameter.

(2) Changes in sampling frequency for a specific well after a one-year period of below detection limit values for all chemical parameters from that well.

(3) Temporary increases in sampling frequency or changes in requested chemical parameters for a well or group of wells because of a change in data needs (e.g., evaluating groundwater extraction effectiveness or other cleanup strategies).

(4) Add routine analysis for a chemical parameter if the parameter appears as an additional chromatographic peak in three consecutive samples from a particular well.

(5) Add routine chemical parameters for new wells based on the results of initial GC/MS analysis.

(6) Alter sampling frequency based on evaluation of collective data base.

(7) Following a temporary increase in sampling frequency, as described in C.1, the regular sampling frequency will resume after 4 samples show stable or decreasing concentrations provided the sampling indicates compliance with the Site Cleanup Requirements.

D. DESCRIPTION OF GROUNDWATER SAMPLING STATIONS

Stations	Description
Listed in Table SMP-1 and shown in Figure 1	All current and future monitoring and extraction wells.

E. SCHEDULE AND CONDITIONS OF SAMPLING AND ANALYSIS

The schedule and conditions of sampling and analysis shall be as given herein:

1. Unless otherwise specified, all samples should be analyzed by an EPA 8000 series method capable of meeting the required detection limits.

2. Once every three months, while cleanup standards are being achieved, representative samples shall be collected for analyses from monitoring wells listed in Table SMP-1 and as shown on Figure 1. All samples of one event shall be collected at approximately the same time.

3. For any new extraction or monitoring well that may be constructed, sampling and analysis shall be conducted on a quarterly schedule for a term to be decided by the Regional Board's Executive Officer but not less than one year. A GC/MS analysis shall be performed on each new well immediately after installation and well development and all peaks identified and reported on each well in the next quarterly report.

4. After cleanup standards have been achieved, samples shall continue to be collected for analyses from all monitoring and extraction wells identified in Table SMP-1 on a quarterly (once every three months) basis during a one-year stability period. The one year stability period is to demonstrate the consistency of the groundwater quality in meeting the cleanup standard.

5. Following completion of the stability period, samples shall be collected for analyses from the wells once a year for a period not less than three years, as a part of a long term monitoring program.

   At the end of the three-year long term monitoring period, specific wells may be identified for biannual post closure monitoring, if deemed necessary by the Regional Board's Executive Officer.

6. All chemical analyses shall have detection limits below the state action level for water for all constituents analyzed.

7. Groundwater elevations shall be obtained and reported on a quarterly basis from each monitoring and extraction well listed in Table SMP-1. In addition, the depth of the pump in all extraction wells shall be obtained and submitted in the quarterly report with the sampling results.

8. Depths of wells in Table SMP-1 shall be determined on an annual basis and compared to the depth of the well as constructed. The results of this comparison shall be reported in the annual report specified in C.3.c.(6).

I, Steven R. Ritchie, Regional Board Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data to determine compliance with Regional Board Order No. 93-149.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the dischargers and revisions will be ordered by the Executive Officer.

Effective Date: November 19, 1993

Steven R. Ritchie
Executive Officer

Attachments: Figure 1 - Monitoring Well Locations
Table SMP-1 - Schedule for Sampling, Measurements, and Analysis

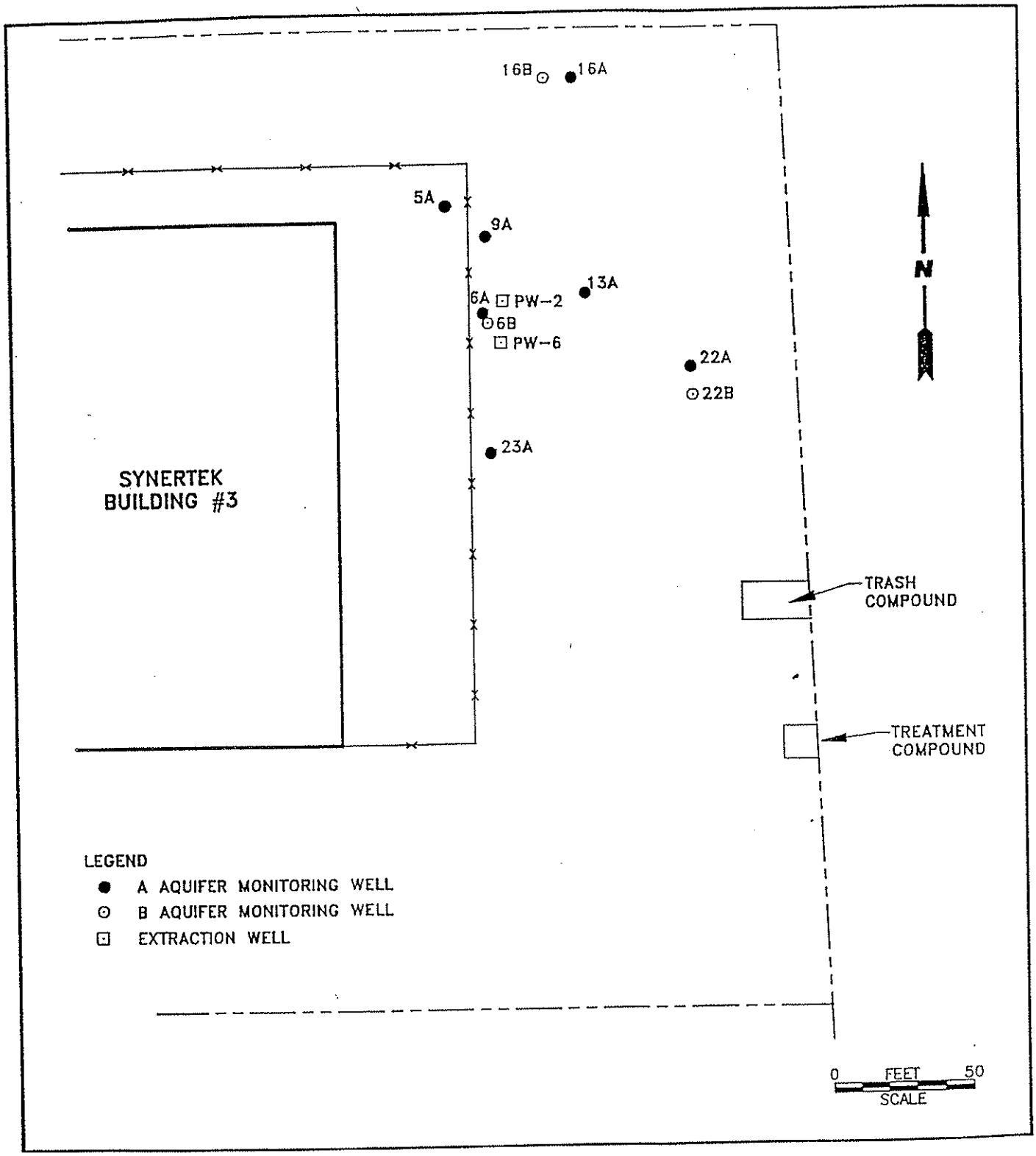

Figure 1

Monitoring Well Locations
Synertek #3 Site
3001 Stender Way, Santa Clara

Base map from
Groundwater
Technology

TABLE SMP-1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

GROUNDWATER SELF-MONITORING PROGRAM

HONEYWELL INC. AND SPIEKER-FRENCH 34
FORMER SYNERTEK #3 SITE

3001 STENDER WAY
SANTA CLARA, SANTA CLARA COUNTY

Wells	1ST QUARTER (Jan.-Mar.)	2ND QUARTER (Apr.-June)	3RD QUARTER (July-Sep.)	4TH QUARTER (Oct.-Dec.)
6A	x	x	x	x
6B	x	x	x	x
13A	x	x	x	x
5A	x		x	
9A	x		x	
22A	x		x	
16A	x			
16B	x			
22B	x			
23A	x			

Note: 1. Type of sample = Grab sample
2. Type of analysis = EPA 8000 Series method capable of meeting the required detection limits.